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M. M. LEIGHTON, *Chief*
URBANA

REPORT OF INVESTIGATIONS—NO. 76

SURFACE STRUCTURE MAP OF SHELBY, EFFINGHAM AND FAYETTE COUNTIES

BY

WILLIAM A. NEWTON

EXPLANATION AND SUMMARY

BY

J. MARVIN WELLER AND ALFRED H. BELL

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Topographic Mapping in Cooperation with the United States Geological Survey.

This Report is a Contribution of the Stratigraphy and Paleontology Division and the Oil and Gas Division.

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SURFACE STRUCTURE MAP OF SHELBY, EFFINGHAM, AND FAYETTE COUNTIES

By
WILLIAM A. NEWTON

EXPLANATION AND SUMMARY

By
J. MARVIN WELLER AND ALFRED H. BELL

INTRODUCTION

STUDY OF THE STRATIGRAPHY of the outcropping strata of Shelby, Effingham, and Fayette counties was undertaken in 1937 by William A. Newton, then a member of the State Geological Survey staff, assisted by J. L. Lester. Previously these counties had been studied by geologists of oil companies, but the information gained was not available to the public. Although extensive leasing had been done in this territory, much of it in 1936, it was felt that the public, including property owners who had not leased and those who had royalty rights, still had interests that would best be served by information obtained from a systematic study by the State Geological Survey. Accordingly Mr. Newton, under Survey auspices, carried out the stratigraphic studies during the summer of 1937, followed by structural studies in the summer of 1938.

Completion of the work by Mr. Newton was delayed by graduate work at Stanford University, following which, in July 1940, he accepted a position with the Carter Oil Company. The State Geological Survey also arranged with him to complete its project privately and on his own time, in strict accordance with the Survey's policy to release no information until it could be made public. The structure map of Shelby, Effingham, and Fayette counties herewith published represents a preliminary report to be followed later by a more detailed description of the stratigraphy. The descriptive matter contained herein was prepared by Dr. J. Marvin Weller, Geologist and Head of the Survey's Stratigraphy and Paleontology Division, and Dr. A. H. Bell, Geologist and Head of the Oil and Gas Division, from notes submitted by Mr. Newton. They have also edited the structure map in Mr. Newton's absence.

STRUCTURE MAP

CONTROL

The structural map of Effingham, Fayette and Shelby counties is based upon the study of outcrops and well records. Datum points, whose elevations were used in drawing the structure contours, are shown by symbols that are explained in the legend on the map. The elevations of outcrops were determined by Paulin altimeter. These datum points are not uniformly distributed throughout the counties. Outcrops are abundant along some of the creeks, but a thick covering of glacial drift hides the bedrock from view throughout extensive areas. Wells whose records are preserved in the files of the Illinois Geological Survey are likewise unequally distributed. Consequently the data upon which some parts of this map are based are unfortunately but unavoidably scanty, and it is possible that more complete information (such as that obtained by core drilling by oil companies whose records have not been made public) would reveal other favorable structures that are not indicated by the available data. Such additional structures, if present, probably occur in those areas where the datum points shown on the map are fewest and most widely separated.

Contoured Horizon

The horizon selected for contouring is the top of the Upper Bogota limestone. The outcrops of this limestone, or other beds close to it, occur at widely separated places throughout Effingham, Fayette, and Shelby counties and are easily recognized. Where these beds are buried and other overlying rocks are exposed, or where they have been eroded and the outcrops consist of underlying rocks, the approximate elevation of this limestone can be calculated from measurements made of the thicknesses of all the rock strata that have been studied in this part of the State.

The LaSalle limestone is an important bed that can be recognized in almost all carefully kept well records, and its position in wells is very useful in locating the thinner Upper Bogota limestone. The thickness of the interval between these two limestones is not constant but in Effingham, Fayette, and Shelby counties it varies from 40 to 190 feet. The small map inset in the upper right-hand corner of the structural map shows by contours the variations in the thickness of this interval in these counties.

Fig. 1—Index map.

Deeper Structure

The structure shown on the map of Effingham, Fayette, and Shelby counties is the structure of the surface rocks although the first important prospective oil sand (the Cypress sandstone) lies at depths probably ranging from about 1500 to some 2500 feet. The various rocks that occur between this sand and the surface are not of uniform thickness or character, and some of them thicken and thin importantly and irregularly from place to place. Consequently a map showing the structure at the surface may not show accurately the structure of any deeper bed. A surface structural map such as this can only suggest where deeper structures are most likely to occur. Although some small surface anticlines and domes may die out and disappear in the rocks below, experience in other Illinois oil fields indicates that most such structures, and especially the larger and more pronounced ones, persist and generally become somewhat steeper in the underlying rocks. Even if the structure persists and steepens with depth, however, the position of its axis may be shifted, and a surface structure map cannot be relied upon to show exactly where the prospective oil sand is highest or to predict the productive limits of a pool even after oil has actually been discovered.

Stratigraphy

The rocks exposed in Effingham, Fayette, and Shelby counties include the youngest Pennsylvanian strata known in Illinois. The stratigraphic section is similar in many ways to that exposed in adjoining counties to the east described in Report of Investigations No. 45.[1]

[1]Newton, W. A., and Weller, J. M., Stratigraphic studies of Pennsylvanian outcrops in part of southeastern Illinois: Illinois Geol. Survey Report Inv. 45, 1937.

LaSalle cyclothem.[2]—The most conspicuous member of the LaSalle cyclothem, the oldest exposed in the area, is the LaSalle limestone which generally consists of two benches of massive hard gray compact limestone separated by thin shaly strata and attaining a thickness of 10 feet or more. This limestone is exposed only along Ramsey Creek in Fayette County, but it can be easily recognized in the carefully kept logs of wells.

Cohn cyclothem.—The Cohn is a very thin cyclothem that is characterized particularly by a dark gray to black shale member containing abundant specimens of ostracodes and *Estheria.*

Lower Bogota cyclothem.—The Lower Bogota is another thin cyclothem that is similar to the Cohn and is easily confused with it. It is quite variable in both its character and thickness.

Upper Bogota cyclothem.—The Upper Bogota cyclothem commonly has a basal sandstone. Its most characteristic member is a bed of black "slaty" shale, generally 1 to 2 feet thick, that overlies a thin but rather persistent coal that thickens sufficiently at a few places to be mined on a small scale. At most places thin lenticular marine limestone is present either immediately below or above the black shale. The top of the limestone above the shale has been used as the horizon for structure contouring in Effingham, Fayette, and Shelby counties. Gray shale up to 20 feet or more thick, with ironstone nodules, commonly occurs at the top of this cyclothem although at some localities there is sandstone containing marine fossils.

Newton cyclothem.—The Newton cyclothem crops out extensively in Fayette and Shelby counties. The basal bed is sandstone, locally massive, above which commonly occurs one or two beds of light colored fresh-water limestone. The Newton coal is the most extensive and important seam cropping out in the area. It has been mined near Trowbridge, near Shelbyville, between Shelbyville and Tower Hill, west of Tower Hill, and in the vicinity of Cowden and Fancher. Black "slaty" shale is generally absent above the coal. The upper part of the cyclothem consists mainly of gray shale as much as 40 feet thick, although at some places this may be cut out and replaced by sandstone. The upper shale locally includes beds that suggest the presence of another incompletely developed cyclothem. The most important of these is a ferruginous limestone which contains the shells of a large *Myalina.*

Greenup cyclothem.—The basal member of the Greenup cyclothem is generally shaly sandstone. Coal and underclay are thin, lenticular, and only locally present. The most important member is the Omega (or Greenup) limestone, mostly light gray and compact like the LaSalle limestone, and 3 to 6 feet thick. It is a single layer and at many places contains abundant specimens of *Triticites,* particularly in the upper part. At some places, especially south and southwest of Shelbyville, this member grades laterally into very impure bluish limestone 25 or more feet thick.

Gila cyclothem.—The Gila is a thin cyclothem. It generally contains in its lower part variegated shale ranging from chocolate to red in color, and a little higher a thin fossiliferous limestone that commonly weathers to a reddish color.

Woodbury cyclothem.—The Woodbury cyclothem occurs only in Effingham county. It includes a thin unevenly bedded basal sandstone, thin underclay and coal, thin black shale with abundant *Estheria,* thin platy fossiliferous limestone, and an upper olive-gray shale not more than 15 feet thick with a few small ironstone nodules.

Shumway cyclothem.—The Shumway is the youngest complete cyclothem known in Illinois. Its lower part includes a basal shale with slabby sandstone, local fresh-water limestone and underclay and very thin shaly coal. Its most characteristic beds consist of black "slaty" shale, as much as 4 feet thick, that may directly overlie the coal or rise 10 feet above it, and overlying and underlying marine fossiliferous limestones. The limestones are both quite impure but the upper one is persistent and weathers to a characteristic buff color. At the top is dark to olive-gray shale 20 feet thick containing large flattened ironstone concretions.

[2]A cyclothem is a succession of several different kinds of strata that, with some variation, is repeated many times in the Pennsylvanian system. It may be considered roughly equivalent to a formation.

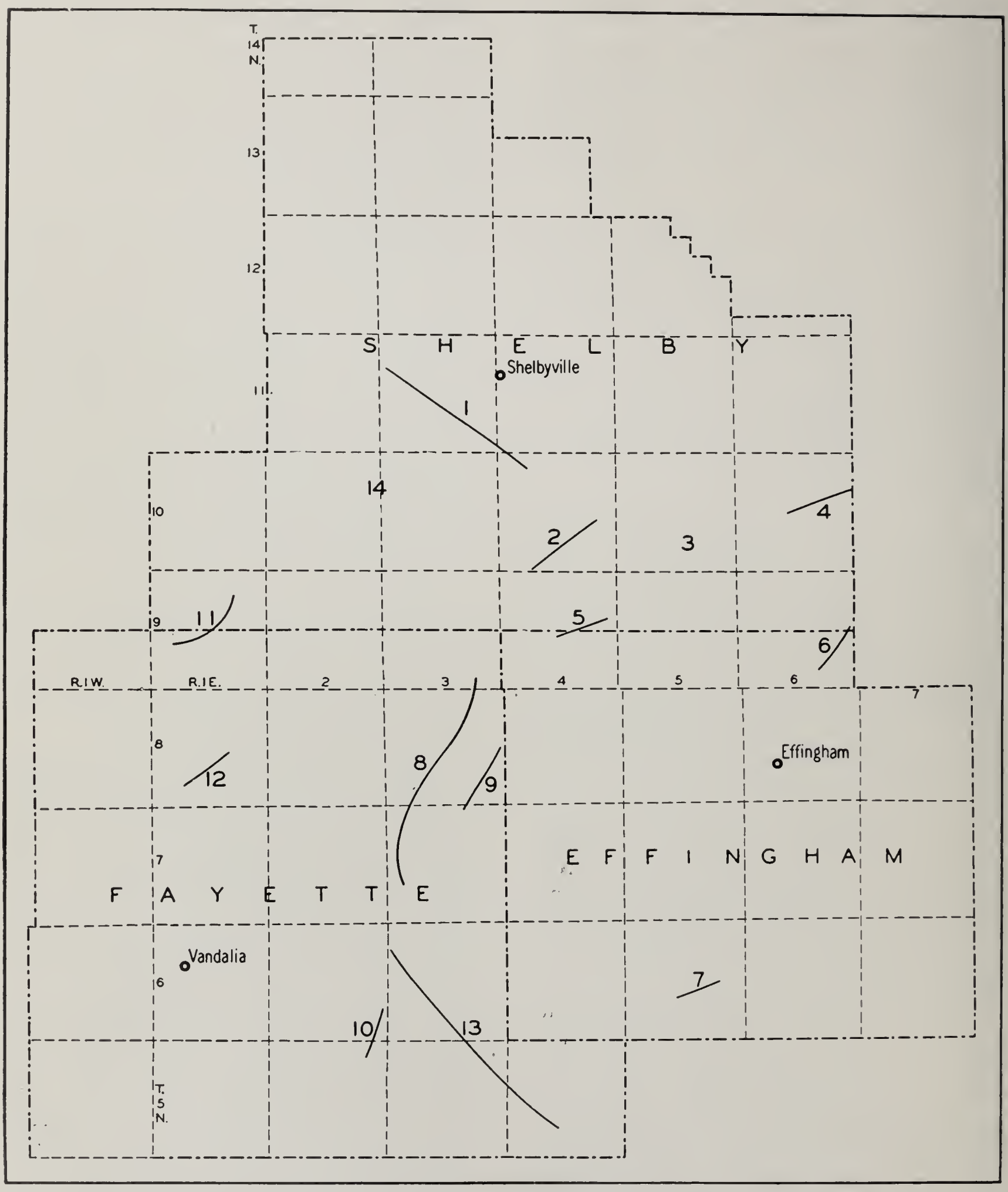


FIG. 2—Map of Fayette, Effingham, and Shelby counties, showing location of structures indicated by the countour map (pl. 1).

1 Shelbyville anticline
2 Fancher-Mode anticline
3 Stewardson anticline
4 Trowbridge anticline
5 Holland anticline
6 Sigel anticline
7 Mason anticline
8 Louden anticline
9 East Louden anticline
10 St. James anticline
11 Anticlinal nose
12 Anticlinal nose
13 Anticlinal nose
14 Possible Lakewood anticline

Unconformable sandstone.—Massive friable sandstone overlies other beds at many of the outcrops in Effingham, Fayette, and Shelby counties. Such sandstone cannot be identified. Some of it may correspond to the basal sandstones of some of the cyclothems described above. At other places, however, it is probably younger than the Shumway cyclothem.

DEVELOPMENT AND EXPLORATION

Oil is produced in the Louden, St. James, Stewardson, Mason, and Lakewood pools. Of these the Louden pool, discovered in 1937, is by far the largest, having a productive area of about 19,000 acres and 1809 producing wells on July 1, 1941. Production is from the Cypress, Paint Creek Stray, and Bethel sandstones in the Chester series, which occurs at average depths of 1493, 1546 and 1540 feet respectively, and from the Devonian limestone, which occurs at an average depth of 3070 feet. Total oil production from the Louden pool to July 1, 1941, was approximately 58,650,000 barrels.

The St. James pool, located about four miles south of the south end of the Louden pool, was discovered in 1938, has an area of 1830 acres, and had 177 producing wells on July 1, 1941. Production is mainly from the Cypress sandstone, average depth of which is 1581 feet. Total production to July 1, 1941, was approximately 3,250,000 barrels.

The Stewardson pool, discovered in 1939, consisted of three wells on July 1, 1941. Production is from the Aux Vases sandstone at the base of the Chester series; depth to the top of the Aux Vases is 1942 feet. Total production to July 1, 1941, was approximately 17,600 barrels.

The Mason pool, discovered June 18, 1940, had nine wells as of July 1, 1941. Of these, eight are in the McClosky (average depth to top 2490 feet), and one is in the Benoist sand (depth to top 2270 feet). The Mason pool had produced approximately 70,000 barrels of oil to July 1, 1941.

The Lakewood pool was discovered April 29, 1941. Production is from the Aux Vases sandstone, depth to the top of which is 1723 feet. Initial production from the discovery well was 37 barrels of oil pumping. Up to July 1, 1941, only 1 well was producing, and it had yielded a total of approximately 2000 barrels.

FAVORABLE OIL STRUCTURES

The map indicates a number of closed anticlines or domes which appear favorable to the occurrence of oil and gas if they extend downward into the pre-Pennsylvanian strata. These are discussed below.

(1) Shelbyville Anticline

An anticline with two areas of closure west and south of Shelbyville centers in secs. 21 and 22, T. 11 N., R. 3 E., and sec. 31, T. 11 N., R. 4 E., and secs. 5 and 6, T. 10 N., R. 4 E. These two highs are aligned with each other in a northwest-southeast direction and have closures of about 30 feet each. Favorable territory on each is enclosed by the 500-foot contour.

There is no record of test-drilling for oil and gas on these structures, but two wells have been drilled into the Lower Mississippian near the southeastern end. One of these, the Kingwood Oil Co., Howe No. 1, SE. cor. sec. 7, T. 10 N., R. 4 E., Shelby County, drilled in 1939, had shows of oil in the Bethel sandstone of the Chester series and the Warsaw limestone of the Lower Mississippian series. Test-drilling, at least to the McClosky, is recommended on the high parts of these structures.

(2) Fancher-Mode Anticline

The crest of the Fancher-Mode structure is in the SE. ¼ sec. 32, and SW. ¼ sec. 33, T. 10 N., R. 4 E., and the axis extends northeast to sec. 23, T. 10 N., R. 4 E. A small subsidiary dome occurs in sec. 25, T. 10 N., R. 4 E.

Several test wells have been drilled on and near the Fancher-Mode anticline, most of them reaching the Ste. Genevieve limestone. A show of oil in the Aux Vases sandstone from 1902-1905 feet was reported in the Werner et al—Prosser well No. 1, S. ½ SW. ¼ NE. ¼ sec. 25, T. 10 N., R. 4 E., completed as a dry hole May 25, 1940, total depth 1979 feet.

The highest part of the Fancher-Mode anticline appears to have been well tested. However there appears to be some chance for production in the untested portion of the structure lying mainly in sec. 27, T. 10 N., R. 4 E.

(3) Stewardson Anticline

Available data do not prove whether or not closure is present in the Stewardson anticline. The highest part of the structure appears to be about the center of the N. ½ sec. 27, T. 10 N., R. 5 E. The Stewardson pool, noted above, is located on this structure. Although not yet defined by dry holes, the extent of the productive area seems likely to be small.

(4) Trowbridge Anticline

The crest of the Trowbridge anticline is located in the southern part of sec. 15, T. 10 N., R. 6 E. The structure trends northeast-southwest like the Fancher-Mode anticline.

The Trowbridge anticline has not yet been tested on its highest part. The English et al, McClory well No. 1, SE. ¼ SE. ¼ NE. ¼ sec. 14, T. 10 N., R. 6 E., drilled in 1937, had a good show of oil in the Bethel sandstone from 2161 to 2169 feet. This well was located about 1½ miles east of the crest of the structure as mapped. There appears to be a fairly good chance to find production higher on the structure.

(5) Holland Anticline

The Holland anticline centers in parts of secs. 14, 15, 22, and 23, T. 9 N., R. 4 E., and lies partly in Shelby County and partly in Effingham County. It trends east-northeast and west-southwest and has a closure between 10 and 20 feet. It has been tested by one well, the Goad—Goad No. 1 (total depth 2005 feet, completed July 5, 1939), which probably reached the Ste. Genevieve formation. A slight show of oil was reported at 1978-1984 feet. Prospects do not appear especially favorable.

(6) Sigel Anticline

The Sigel anticline centers in secs. 23, 24, 25, and 26, T. 9 N., R. 6 E., Effingham County. It has a closure of about 20 feet and trends northeast-southwest. It has been tested by one well, located near the top, the Mitchell et al, Zumbahlen No. 1, cen. NW. ¼ NE. ¼ SE. ¼ sec. 26, T. 9 N., R. 6 E., total depth 2656 feet, completed as a dry hole on April 16, 1940. Shows of oil were reported in the Bethel sandstone from 2274 to 2277 feet and in the McClosky lime from 2417 to 2432 feet. Although one well cannot be said to have exhausted the possibilities of this structure, the prospects do not appear especially favorable.

(7) Mason Anticline

The highest part of the Mason anticline is shown in the NW. ¼ sec. 22, T. 6 N., R. 5 E., Effingham County. The Mason oil pool is located on this structure.

(8) Louden Anticline

The Louden anticline as mapped on the upper Bogota limestone is broken up into about five separate closed highs along an anticlinal axis which approximately coincides with the axis as mapped on the Glen Dean limestone (see R. J. Sullivan "Gas Injection at Louden, Illinois," A.I.M.E. Petroleum Technology, Vol. 3, No. 1, Tech. Pub. No. 1173, fig. 1, p. 2). The axis of the Glen Dean structure extends from sec. 6, T. 6 N., R. 3 E., northward to sec. 6, T. 7 N., R. 3 E., thence east of north to sec. 2, T. 8 N., R. 3 E. The Louden pool, described above, is located on the Louden anticline.

(9) East Louden Anticline

An anticline having relatively steep dips, especially on its west flank centers in the northwest part of sec. 25, T. 8 N., R. 3 E. This anticline has a closure of about 70 feet on the upper Bogota limestone and has a trend parallel to that of the Louden anticline in its northern part, namely north-northeast - south-southwest.

The structural interpretation shown appears to be well supported by datum points determined on outcrops, and if correct the East Louden anticline appears to be well worthy of testing.

(10) St. James Anticline

The St. James anticline centers in secs. 25 and 36, T. 6 N., R. 2 E., as mapped on the upper Bogota limestone. The St. James pool, described above, is located on it.

Additional Structures

Several anticlinal noses which may or may not merit further test drilling are shown, the more important being the following:

(11) An anticlinal nose of irregular trend in T. 9 N., R. 1 E., partly in Shelby

County and partly in Fayette County. No deep tests appear to have been located on this structure.

(12) An anticlinal nose plunging approximately northeast in the southern part of T. 8 N., R. 1 E., Fayette County. The Producers Oil Co., Farthing well No. 1, NE. cor. sec. 29, T. 8 N., R. 1 E., drilled in 1938, tested the Ste. Genevieve limestone at a location fairly high on this structure.

(13) An anticlinal nose plunges southeast from the southern end of the Louden anticline in sec. 7, T. 6 N., R. 3 E., to the southern part of T. 5 N., R. 4 E.

Possible Lakewood Anticline

(14) The discovery of oil in sec. 12, T. 10 N., R. 2 E., suggests the presence of an anticline not indicated by the accompanying map. Datum points are inadequate to reveal the details of the structure in this vicinity.

TABLE 1.—DATA ON WELLS NEAR FAVORABLE STRUCTURE

Location ¼ sec., T N., R E,	Company, farm and well No.	Date Comp.	Depth to top deepest formation	Total depth	Shows of Oil
		SHELBY COUNTY			
SE SW SW 34-12-4	Prunty Producing — Hickey 1	12/13/38	Ste. Genevieve 1957	2013	A.V. 1911-20
SE cor. 4-11-3	Milan et al — Kull 1	7/27/38	Ste. Genevieve 1800	1951	
NE NE 9-11-4	Marshall — Riley 1	3/14/39	Ste. Genevieve 1940	2068	
SE SE SE 7-10-4	Kingwood Oil — Howe 1	8/ 1/39	Warsaw 2340	2454	B. 1800 Warsaw 2181-99
NW NE SE 9-10-4	Fletcher et al — Hellick et al 1	9/12/39	Ste. Genevieve 1900	1993	
SW SW SE 9-10-4	Rose et al — Flenner 1	7/ 1/41	Ste. Genevieve 1948	2055	
NE NW NE 22-10-4	Doran — Compton 1	5/14/40	Ste. Genevieve 1895	2010	
S ½ SW NE 25-10-4	Werner et al — Prosser 1	5/21/40	Ste. Genevieve 1973	1979	A.V. 1902-05
SE cor. 26-10-4	Ogg et al — Jenkins 1	11/16/38	Aux Vases*	1900	
SE NW SE 32-10-4	Black et al — Hopkins 1	11/16/38	Ste. Genevieve 1800	1920	
SW SE NW 33-10-4	Doran — Gallagher 1	11/ 5/40	Ste. Genevieve*	2005	
SE SE NE 14-10-6	English et al — McClory 1	11/20/37	Ste. Genevieve 2212	2384	B. 2161-9
NW SW NW 20-10-6	Gulf Ref. — Best 1	9/12/39	St. Louis 1s. 2300	2330	
NE NW NW 4- 9-4	Moore et al — Yakey 1	11/30/38	Bethel 1654	1677	
NW NW SW 14- 9-4	Goad — Goad 1	7/ 5/39	Ste. Genevieve*	2005	(SSO 1978-84)
NW SW SE 7- 9-5	Aylward — Bickford 1	2/21/39	Ste. Genevieve 1948	1974	
NW NE NW 12- 9-6	Boeseke et al — Bigler 1	11/21/39	Ste. Genevieve 2292	2411	
NE NE NE 15- 9-6	Boeseke — Zumbahlen 1	7/ 5/39	St. Louis*	2452	Mc 2376-85
		FAYETTE COUNTY			
SW SW NE 9- 8-1	Rockwood — Soper 1	10/ 4/38	Bethel ss. 1660	1703	
NE NE NE 29- 8-1	Producers Oil — Farthing 1	11/ 9/38	Ste. Genevieve 1613	1695	
SE SW NE 33- 8-1	Doran et al — Moore 1	11/ 9/38	Aux Vases*	1665	
		EFFINGHAM COUNTY			
SW SE SE 20- 9-4	Carter Oil — Bartscht 1	8/24/38	Ste. Genevieve 1895	2012	
C NW NE SE 26- 9-6	Mitchell et al — Zumbahlen 1	4/16/40	St. Louis 2514	2656	B. 2274-77 Mc 2417-32

* Logs and sample sets not available; correlations probable but uncertain.

TABLE 2.—TYPICAL PRODUCING WELLS

(JULY 1, 1941)

Location ¼ sec., T. N., R. E.	Company, farm and well No.	Date Comp.	Producing formation	Depth top	Total depth	Initial Production[a]
		MASON POOL, EFFINGHAM COUNTY				
SE NE NW 22- 6-5	L. & W. Drlg. — Slone 1	3/ 4/41	"McClosky" ls.	2491	2508	B.O.P. 168
SW SE NW 27- 6-5	Lynch et al — Burk 1	6/10/41	Bethel ss.	2274	2302	B.O.P. 175 + 5 water
		LAKEWOOD POOL, SHELBY COUNTY				
SE SE NE 12-10-2	Sloan — Cutler 1	4/29/41	Aux Vases	1723	1735	B.O.P. 37 + 7 water
		STEWARDSON POOL, SHELBY COUNTY				
C SW SW SE 22-10-5	Powell et al -- Rincker 1	11/26/40	Aux Vases	1938	1970	B.O.P. 35
		LOUDEN POOL, FAYETTE COUNTY				
NW SW SE 4- 7-3	Carter Oil — Mills 1	7/18/39	Cypress ss.	1502	1561	B.O.S. 80
SE SW NW 4- 7-3	Carter Oil — McClain 6	10/ 3/39	Paint Creek Stray ss.	1504	1543	B.O.S. 380
NE NW NW 4- 7-3	Carter Oil — McClain 5	9/ 6/39	Bethel ss.	1578	1585	B.O.S. 340
C E SW SE 16- 8-3	Whisenant et al — Lilley 26D	7/ 1/41	Devonian ls.	3063	3130	B.O.F. 317
		ST. JAMES POOL, FAYETTE COUNTY				
SW SW SE 25- 6-2	Gulf Ref. — Smail 11	12/ 5/39	Cypress ss.	1573	1616	B.O.P. 156
C SW SE SE 25- 6-2	Gulf Ref. — Smail 6	10/10/39	Paint Creek Stray ss.	1573	1610	B.O.P. 168

a P—pumping; S—swabbing; F—flowing.

TABLE 3.—DATUM POINTS FOR SURFACE STRUCTURE MAP OF SHELBY, EFFINGHAM, AND FAYETTE COUNTIES

Location			Company, farm, well No.; outcrop, or mine	Ground elev. of well	Horizon[b]	Elev. of Horizon	Interval to Key Bed	Elev. of Key Bed
Co.[a]	¼ sec. T.N.—R.E.							
F	SW SW SE	8-5-1	Burroughs — Hasler 1	459	LaSalle ls.	274	+107	381
F	SW SW SW	28-5-1	Big Four O. & G. Co. — G. W. Albert 1	507	LaSalle ls.	244	+122	366
F	NE SE NE	30-5-1	W. C. Stevenson et al — Harkness et al 1	484	U. Bogota ls.	299		299
F	NW NE SE	34-5-1	Whisenant & Trenchard — Bolburg 1	515	U. Bogota ls.	348		348
F	SE NE SE	1-5-2	Outcrop		Shelby coal	541	— 75	466
F	SW SW NE	3-5-2	Outcrop		Shelby underclay	509	— 60	449
F	NW NW NE	6-5-3	A. P. Muhlbach — Peters 1	649	U. Bogota bl. sh.	447	+ 5	452
F	NW NW SW	16-5-3	Rush & Milliken Co. — Bahde 1	606	LaSalle ls.	281	+100	381
F	C SW SE	30-5-3	Kingwood Oil Co. — Aukamp 1	577	U. Bogota coal	362	+ 5	367
E	NW NW NE	10-5-4	Outcrop		Woodbury Fw. ls.	556	—215	341
E	NW SW NE	28-5-4	Oil Inc. et al — C. T. Wade 1	577	LaSalle ls.	272	+160	432
E	NW NW SW	36-5-4	Outcrop		Woodbury ls.	546	—210	336
F	SW NE	22-6-1	Haysman et al — Northwestern Inv. Co.	1467	LaSalle ls.	387	+ 80	467
F	E ½ NW SW	13-6-2	Ohio Oil Co. — Geo. Parks 1	577	LaSalle ls.	416	+ 80	496
F	W ½ NE SE	25-6-2	Texas Co. — M. Griffith 3	565	U. Bogota ls.	490		490
F	NW NE SE	27-6-2	Outcrop		U. Newton ls.	507	— 66	441
F	NE SE NE	36-6-2	Ohio Oil Co. — Schwarm 12	584	U. Bogota ls.	479		479
F	NW NW NW	5-6-3	Texas Co. — G. Eldridge 1	609	LaSalle ls.	422	+ 60	482
F	SW NW SW	6-6-3	Schuman Bros. — E. Combe 1	592	LaSalle ls.	461	+ 61	522
F	NE NW NW	7-6-3	Texas Co. — Irey 1	590	LaSalle ls.	450	+ 61	511
F	C N ½ SE NE	20-6-3	Whisenant & Trenchard — Rex Winkle 1	589	U. Bogota ls.	485		485
F	SE NW SW	30-6-3	Ohio Oil Co. — C. M. Rush 5	524	LaSalle ls.	329	+ 90	419
F	SE NE NW	31-6-3	Texas Co. — C. Wright 3	578	U. Bogota ls.	437		437
F	NE NE SW	34-6-3	Outcrop		Shelby coal	559	— 78	481
E	NE SE SE	11-6-4	Outcrop		Omega ls.	529	—170	359
E	S NE SE SE	12-6-4	Outcrop		Omega ls.	517	—180	337
E	SE SW NE	16-6-4	J. D. Yates — ? 1	557?	U. Bogota ls.	399		399
E	NW NE SW	20-6-4	Outcrop		Omega ls.	580	—160	420
E	NW NW NW	27-6-4	Kingwood Oil Co. — Casey 1	584	U. Bogota bl. shale	389	+ 3	392
E	SE SW SW	1-6-5	Outcrop		Shumway ls.	488	—260	228
E	NW NW	8-6-5	N. M. Downey — 1	508	U. Bogota bl. shale	312	+ 3	315
E	SW NW SE	12-6-5	Outcrop		Shumway ls.	512	—257	255
E	SE NE SE	14-6-5	Outcrop		Shumway ls.	525	—254	271
E	C E ½ NE SW	14-6-5	Kingwood Oil Co. — R. Martin 1	555	U. Bogota ls.	285		285
E	SE NE NE	18-6-5	Quarry		Omega ls.	508	—185	323
E	NE SE NE	18-6-5	Outcrop		Omega ls.	513	—185	328
E	NW ¼	22-6-5	A. J. Hammer — C. Rose 1	589	LaSalle ls.	199	+143	342
E	C W ½ NW NE	26-6-5	Kingwood et al — Bartel 1	541	U. Bogota coal	256	+ 5	261

E	NE NW NE	21-6-6	Outcrop		Shumway ls.	487	—310	177
E	NE SE NE	28-6-6	Outcrop		Shumway ls.	516	—320	196
E	E ½ SW NW	29-6-6	Outcrop		Gila ls.	491	—255	236
E	NW NW SE	29-6-7	Paul Doran — Toehler 1	542	U. Bogota bl. shale	2	+ 3	5
F	NW NE NE	1-7-2	V. A. Hudson et al — Harner 1	600	LaSalle ls.	475	+ 70	545
F	SE SW NE	12-7-2	W. C. McBride, Inc. — Williams 1	584	LaSalle ls.	455	+ 80	535
F	NE SE SE	13-7-2	Blalack & Walters — Logue 1	563	LaSalle ls.	433	+ 80	513
F	SE NE SE	3-7-3	R. E. Markham et al — Chas. Rhodes 1	599	LaSalle ls.	437	+ 70	507
F	SW SW NE	4-7-3	Carter Oil Co. — Geo. Ashburn 1	598	U. Bogota ls.	523		523
F	NW NW SE	5-7-3	Carter Oil Co. — Ramsey-Leavy 1	587	LaSalle ls.	497	+ 63	560
F	NE NE SW	6-7-3	Carter Oil Co. — F. Quade 1	584	LaSalle ls.	478	+ 68	546
F	SE SW NE	7-7-3	Carter Oil Co. — O. E. Goodson 5	585	LaSalle ls.	425	+ 72	497
F	NE NE SW	8-7-3	Carter Oil Co. — E. Owens 5	583	LaSalle ls.	476	+ 64	540
F	NW SE NW	9-7-3	Stewart Oil Co. — B. Sanford 2	591	LaSalle ls.	474	+ 60	534
F	NW corner	10-7-3	Pray Drlg. Co. — Seibert 1	602	LaSalle ls.	437	+ 60	497
F	SW SW SE	16-7-3	Minerva Oil Co. — Bail 1	604	LaSalle ls.	424	+ 60	484
F	NE NE SW	17-7-3	Carter Oil Co. — W. Hawkins 8	581	LaSalle ls.	450	+ 65	515
F	SW SW NE	18-7-3	Carter Oil Co. — McCormick 13	586	LaSalle ls.	491	+ 74	565
F	SE corner	19-7-3	Carter Oil Co. — Sidner 1	598	U. Bogota ls.	537		537
F	NW NE SW	20-7-3	Carter Oil Co. — L. Hackert 3	594	LaSalle ls.	414	+ 65	479
F	SW corner	21-7-3	Stewart Oil Co. — Aldridge 1	598	LaSalle ls.	419	+ 60	479
F	NW NW NW	27-7-3	Outcrop		Newton shale	569	—115	454
F	NW NE NW	28-7-3	Shell Petrol. Corp. — Van Bewning 2	601	LaSalle ls.	405	+ 60	465
F	NE SE NE	29-7-3	Shell Petrol. Corp. — Fulton 6	600	LaSalle ls.	401	+ 60	461
F	SW SW NE	30-7-3	Whisenant & Trenchard — C. Smith 6	592	LaSalle ls.	407	+ 69	476
F	SW SW NE	31-7-3	Carter Oil Co. — M. J. Griffith 11	601	U. Bogota ls.	506		506
E	E ½ NE	7-7-4	E. A. Nesbitt et al — F. G. Burrough 1	622	U. Bogota ls.	451		451
E	SE NW NE	26-7-4	Outcrop		Omega coal	543	—147	396
E	SW NE NE	26-7-4	Outcrop		Omega ls.	540	—150	390
E	SW NW SW	36-7-4	Outcrop		Shumway ls.	551	—228	323
E	SW NW SE	36-7-4	Outcrop		Shumway ls.	554	—228	326
E	NE NE SE	13-7-5	Herbert Gussman — Wagner 1	572	LaSalle ls.	147	+167	314
E	NW SE NE	31-7-5	Outcrop		Shumway bl. shale	530	—226	304
E	NW SW NW	34-7-5	Outcrop		Shumway ls.	504	—235	269
E	NW NW NW	34-7-5	Outcrop		Shumway ls.	502	—230	272
E	NE SE NE	35-7-5	Outcrop		Shumway ls.	496	—245	251
E	NE NW SE	35-7-5	Outcrop		Shumway bl. shale	494	—245	249
E	NE corner	5-7-6	W. H. Hazlett et al — J. Haarman 1	588	U. Bogota bl. shale	285	+ 3	288
E	NE NW NE	5-7-6	Faurot-Mitchell — Harmon 1	591	LaSalle ls.	131	+176	307
E	NW NE SE	10-7-6	Outcrop		Woodbury ls.	511	—230	281
E	SW SE NE	16-7-6	Outcrop		Woodbury ls.	516	—230	286
E	SE NE NW	21-7-6	Outcrop		Woodbury bl. sh	519	—227	292
E	NE SE NE	17-7-7	Kingwood Oil Co. — Niemerg 1	569	U. Bogota ls.	277		277

[a] F—Fayette; E—Effingham; S—Shelby.

[b] Abbrevations: bl., black; FW., fresh water; ls. limestone; sh., shale; ss., sandstone; U., upper.

Co.[a]	Location ¼ sec.	T.N.—R.E.	Company, farm, well No.; outcrop, or mine	Ground elev. of well	Horizon[b]	Elev. of Horizon	Interval to Key Bed	Elev. of Key Bed
F	SE SW SE	14-8-1	Hayes, Miller, et al — Thull 1	569	LaSalle ls.	449	+ 88	537
F	Loc?	17-8-1	Unnamed well at Ramsey	615	U. Bogota coal	565	+ 5	570
F	SE SW NE	19-8-1	Outcrop		LaSalle ls.	528	+ 30	558
F	SE SE NE	19-8-1	Outcrop		LaSalle ls.	524	+ 30	554
F	SE SW SW	20-8-1	Outcrop		LaSalle ls.	517	+ 40	557
F	SW NW NW	28-8-1	Outcrop		LaSalle ls.	516	+ 50	566
F	SW SW NW	28-8-1	Outcrop		LaSalle ls.	514	+ 50	564
F	NW SW SW	28-8-1	Outcrop		LaSalle ls.	509	+ 50	559
F	NW SE SW	28-8-1	Outcrop		Cohn ls.	524	+ 25	549
F	NE NE NW	29-8-1	Outcrop		Cohn ls.	518	+ 25	543
F	SE SW NE	33-8-1	Paul Doran — C. H. Moore 1	564	LaSalle ls.	489	+ 70	559
F	NW NW NW	34-8-1	Outcrop		Cohn ls.	519	+ 25	544
F	NW NE SE	34-8-1	Outcrop		U. Bogota coal	505	+ 5	510
F	SE SW NE	1-8-3	Carter Oil Co. — J. D. Giles 1	597	U. Bogota ls.	513		513
F	NW SW SW	1-8-3	Carter Oil Co. — Joe Huffman 1	598	LaSalle ls.	491	+ 50	541
F	NW NE NW	2-8-3	Carter Oil Co. — Bertha Aldgood 2	607	LaSalle ls.	485	+ 40	525
F	SE SW SW	2-8-3	Carter Oil Co. — Ruth Musser 1	613	LaSalle ls.	501	+ 40	541
F	SW SE SE	3-8-3	Carter Oil Co. — W. L. Holman 1	602	LaSalle ls.	483	+ 40	523
F	NE SE SE	9-8-3	Carter Oil Co. — John Miller 1	604	LaSalle ls.	467	+ 40	507
F	NE SE SE	10-8-3	Carter Oil Co. — T. N. Logsdon 8	554	LaSalle ls.	463	+ 40	503
F	NE NW SW	10-8-3	Carter Oil Co. — Thomas Sickles 1	607	LaSalle ls.	472	+ 40	512
F	NE NE SW	11-8-3	Carter Oil Co. — Richard Larimore 11-6	603	LaSalle ls.	473	+ 50	523
F	SE SE SE	11-8-3	Carter Oil Co. — Matson-Reed 6	534	LaSalle ls.	484	+ 54	538
F	SE SW NE	12-8-3	Carter Oil Co. — B. Drees 2	607	LaSalle ls.	470	+ 60	530
F	SE SE NW	13-8-3	Carter Oil Co. — Frank Doty 13-6	555	LaSalle ls.	460	+ 60	520
F	NW NW SE	14-8-3	Carter Oil Co. — Henry Klein 1	604	LaSalle ls.	448	+ 56	504
F	SW SW NE	14-8-3	W. C. McBride — Stokes 1	603	LaSalle ls.	451	+ 56	507
F	C NW ¼	15-8-3	Carter Oil Co. — Dove 15-3	630	LaSalle ls.	479	+ 40	519
F	NE NW SE	15-8-3	Carter Oil Co. — Dove 1	531	U. Bogota ls.	521		521
F	C	15-8-3	Carter Oil Co. — Dove 15-6	531	LaSalle ls.	481	+ 40	521
F	NE NE SW	16-8-3	Carter Oil Co. — Henry Lily 4-A	610	U. Bogota ls.	540		540
F	SE SE SE	17-8-3	Carter Oil Co. — J. Lily 1	605	U. Bogota ls.	538		538
F	SW SE SW	20-8-3	Carter Oil Co. — W. A. Eagleton 2	597	LaSalle ls.	492	+ 62	554
F	NW NE NE	21-8-3	Carter Oil Co. — Mary Cummings 1	662	LaSalle ls.	507	+ 46	553
F	NW NW SE	21-8-3	Carter Oil Co. — M. E. Hogan 21-6	598	LaSalle ls.	516	+ 60	576
F	SE NE SW	22-8-3	Carter Oil Co. — Cynthia Hopper 1	526	LaSalle ls.	476	+ 55	531
F	NW NE SW	23-8-3	Carter Oil Co. — Willie Logue 2	568	U. Bogota ls.	501		501
F	NE SW SE	23-8-3	Outcrop		Shelby coal	546	— 36	510
F	SW SW	23-8-3	Outcrop		U. Newton ls.	545	— 45	500

F	NW SE SW	24-8-3	Outcrop		L. Bogota coal	553	+ 32	585
F	S ½ NW NW	25-8-3	Outcrop		L. Bogota coal	564	+ 32	596
F	NE SE NW	25-8-3	Outcrop		U. Bogota coal	565	+ 5	570
F	NW SE NE	25-8-3	Outcrop		U. Bogota ls.	553		553
F	NW SE NW	25-8-3	Outcrop		U. Bogota ls.	570		570
F	SE NE NW	26-8-3	Outcrop		Shelby coal	566	— 36	530
F	NE SW SW	27-8-3	Carter Oil Co. — Wm. Durbin 1	603	LaSalle ls.	448	+ 60	508
F	NW NE SW	28-8-3	Carter Oil Co. — E. Marshall 2	607	LaSalle ls.	487	+ 60	547
F	NE SW SE	29-8-3	Carter Oil Co. — Myers 4	591	LaSalle ls.	488	+ 63	551
F	SE SE NE	30-8-3	Carter Oil Co. — Botterbush 3	520	LaSalle ls.	456	+ 70	526
F	SE SE SW	31-8-3	Roy E. Wilson — Emmerson 1	597	U. Bogota ls.	537		537
F	SE SW NE	32-8-3	Carter Oil Co. — W. Ireland 1	598	LaSalle ls.	484	+ 70	554
F	SE SE NE	33-8-3	Carter Oil Co. — S. M. Dial 2	602	U. Bogota ls.	527		527
F	NE NW NW	36-8-3	Outcrop		Newton Fw. ls.	590	— 30	560
E	E ½ NW SW	7-8-4	R. H. Troopetal—La Crone 1	601	LaSalle ls.	453	+ 66	519
E	NW SW NE	18-8-4	C. L. Erwin — Patterson 1	599	LaSalle ls.	436	+ 72	508
E	NW SW SW	18-8-4	Hauck et al — Morehead 1	609	LaSalle ls.	449	+ 70	519
E	NW NE NW	24-8-4	Penn.-Ill. Oil & Gas Corp. — Niehoff 1	622	LaSalle ls.	332	+113	445
E	NW NE SW	30-8-4	Outcrop		Shelby coal	562	— 70	492
E	NW SE SW	30-8-4	Outcrop		Shelby coal	559	— 70	489
E	NW NW NE	30-8-4	Outcrop		Shelby coal	571	— 70	501
E	NE SE SW	18-8-6	Kingwood Oil Co. — Koester 1	600	U. Bogota Ls. (?)	330		330
E	SW SE NW	33-8-6	Outcrop		Shumway Mid. Ls.	546	—239	307
E	NE SW NW	33-8-6	Outcrop		Shumway bl. shale	552	—241	311
E	C SW NE	11-8-7	Carter Oil Co. — Pruemer 1	594	U. Bogota ls.	284		284
E	SW SW NW	16-8-7	W. C. Kremer — Dan Ordner 1	607±	U. Bogota ls.	267		267
S	NE SE NW	5-9-1	R. H. Durham — S. Rogers (coal test)	649	U. Bogota coal	604	+ 5	609
S	W ½ SW NE	10-9-1	A. W. Hargrave — Hitchcock (coal test)	661	U. Bogota coal	581	+ 5	586
S	N ½ SW SW	15-9-1	Outcrop		U. Bogota coal	577	+ 5	582
S	NW NW NE	16-9-1	Schmitz — A. W. Hargrave (coal test)	668	U. Bogota coal	565	+ 5	570
S	NE NE NW	17-9-1	No record in file		U. Bogota coal	580	+ 5	585
S	NE SE SE	17-9-1	Newton-Rogers (coal test)	644	U. Bogota coal	604	+ 5	609
F	NW NW NE	22-9-1	Outcrop		U. Bogota bl. sh.	583	+ 3	586
F	C S ½ NE	24-9-1	Ryan & Redgraves — W. E. Jones 1	531	LaSalle ls.	446	+100	546
S	Loc. (?)	9-9-2	Pahmerton et al — Dr. Bolt 1	584	LaSalle ls.	432	+100	532
F	NE SE NE	29-9-2	Kingwood Oil Co. — Sloan 1	599	LaSalle ls.	431	+100	531
F	NE NW NE	32-9-2	Hoffman Bros. — 1	507±	LaSalle ls.	418	+100	518
S	NW NE NW	1-9-3	Outcrop		Shelby coal	540	— 70	470
S	SW NE NW	1-9-3	Outcrop		Shelby coal	538	— 70	468
S	SW SE SE	11-9-3	Outcrop		Shelby coal	536	— 68	468
S	SW SW SW	12-9-3	Outcrop		Shelby coal	520	— 70	450
S	SW NW NW	13-9-3	Outcrop		Shelby coal	527	— 70	457
S	SW SW SW	16-9-3	Simar Oil Co. — Prudential Life Ins. Co. 1	586	LaSalle ls	431	+ 75	506

[a] F—Fayette; E—Effingham; S—Shelby.

[b] Abbreviations: bl., black; FW., fresh water; ls., limestone; sh., shale; ss., sandstone; U., upper.

Location			Company, farm, well No.; outcrop, or mine	Ground elev. of well	Horizon[b]	Elev. of Horizon	Interval to Key Bed	Elev. of Key Bed
Co.[a]	¼ sec. T.N.—R.E.							
F	NE SW NE	22-9-3	Outcrop		U. Bogota fossil. ss.	519	— 14	505
F	NE SW NE	28-9-3	Outcrop		U. Bogota coal	514	+ 5	519
F	W ½ NE NE	28-9-3	Outcrop		U. Bogota coal	503	+ 5	508
F	SW SE NE	34-9-3	W. F. Lacey — Herman Buzzard 1	608	LaSalle ls.	468	+ 52	520
F	SW NE NW	35-9-3	Allied Oil Prod. Co. — Buzzard 1	598	LaSalle ls.	484	+ 50	534
F	SE NE SW	35-9-3	Carter Oil Co. — Barbara Anderson 1	606	LaSalle ls.	471	+ 45	516
F	SE SE NW	36-9-3	E. F. Jones — Zander 1	625	LaSalle ls.	477	+ 45	522
S	SE NE NW	1-9-4	Kingwood Oil Co. — Wm. Vogel 1	617	LaSalle ls.	337	+ 60	397
S	NE NE NE	2-9-4	Outcrop		Omega ls.	590	—155	435
S	SW SE NE	2-9-4	Outcrop		Omega ls.	580	—155	425
S	NE NW NW	4-9-4	Moore, Black et al — Yakey 1	539	U. Bogota ls.	466		466
S	NE NE NW	4-9-4	Outcrop		Shelby coal	545	— 80	465
S	SE SE NE	6-9-4	Mine		Shelby coal	539	— 73	466
E	SW SE SE	20-9-4	Carter Oil Co. — Bartsch 1	612	LaSalle ls.	402	+ 75	477
E	SW SW	30-9-4	Peyton & McGraw — W. E. Beck 1	629	LaSalle ls.	468	+ 55	523
E	SW SE SW	31-9-4	Carter Oil Co. — Tennery 1	614	LaSalle ls.	454	+ 58	512
S	NW SW SE	7-9-5	J. B. Aylward et al — E. E. Bickford 1	638	U. Bogota ls.	453		453
E	NW NE SE	26-9-5	Outcrop		Shumway ls.	564	—190	374
E	SE NE SW	26-9-5	Outcrop		Shumway ls.	568	—190	378
E	SE SE SW	26-9-5	Outcrop		Shumway ls.	562	—190	372
E	SE SW SW	26-9-5	Outcrop		Shumway ls.	580	—190	390
E	SW SW SW	26-9-5	Outcrop		Shumway Mid. ls.	576	—183	393
S	NW NE NW	12-9-6	E. J. Boeseke — Bigler 1	639	U. Bogota ls.	504		504
S	NE NE NE	15-9-6	E. J. Boeseke Jr. — E. J. Boeseke 1	636	U. Bogota ls.	469		469
E	NW NE SE	26-9-6	Frank Mitchell et al — Zumbahlen 1	622	U. Bogota ls.	496		496
S	NE SE NE	3-10-1	Outcrop		U. Bogota coal	614	+ 5	619
S	SW SE NE	3-10-1	Outcrop		U. Bogota underclay	601	+ 7	608
S	NW NW NW	3-10-1	J. A. Loomis — H. S. Hargrave (coal test L1)	680	U. Bogota coal	625	+ 5	630
S	NE SE NE	5-10-1	J. A. Loomis — H. S Hargrave (coal test L3)	674	U. Bogota coal	634	+ 5	639
S	NE SE SE	6-10-1	J. A. Loomis — H. S. Hargrave (coal test L2)	654	U. Bogota coal	628	+ 5	633
S	NE SE NE	8-10-1	H. L. Hargrave — Vidler (coal test)	666	U. Bogota coal	578	+ 5	583
S	NE SE SE	17-10-1	H. L. Hargrave — (coal test)	639	U. Bogota coal	608	+ 5	613
S	SE SE NE	12-10-2	Sloan — Cutler 1	604(?)	LaSalle ls.	412	+ 88	500
S	NE NW SE	1-10-3	Outcrop		Shelby coal	516	— 68	448
S	NE SE NE	7-10-3	H. L. Guild — Hunter 1	632	LaSalle ls.	437	+ 80	517
S	SW SW NE	30-10-3	Jesse Moore — Fee 1	565	U. Bogota bl. sh.	490	+ 3	493
S	SW SW SW	1-10-4	Coal test		LaSalle ls.	372	+ 75	447
S	SE SE SE	7-10-4	Kingwood Oil Co. — Howe 1	583	LaSalle ls.	418	+ 70	488
S	NW NE SE	9-10-4	Fletcher et al — R. Hulick 1	620	U. Bogota coal	465	+ 5	470

S	NE SW NW	19-10-4	Whisenant & Henshawk — McKittrick 11	605	LaSalle ls.	385	+ 70	455
S	NE NW NE	22-10-4	Paul Doran — Compton 1	623	LaSalle ls.	362	+ 69	431
S	NE NW SE	23-10-4	Outcrop		Omega ls.	600	—155	445
S	NW NW SE	23-10-4	Outcrop		U. Newton ls.	587	—130	457
S	SE NE NE	25-10-4	Outcrop		Omega ls.	593	—155	438
S	SW NE NE	25-10-4	Outcrop		Omega ls.	602	—155	447
S	SE SW NE	25-10-4	Outcrop		Omega ls.	610	—155	455
S	NE NW SE	25-10-4	Outcrop		Omega ls.	605	—155	450
S	NE SE NE	25-10-4	Outcrop		Omega ls.	600	—155	445
S	SE SE SW	25-10-4	Outcrop		Omega ls.	593	—155	438
S	SE SW SW	25-10-4	Outcrop		Omega ls.	595	—155	440
S	NW SW SW	27-10-4	Mine		Shelby coal	541	— 75	466
S	SW SW SW	27-10-4	Mine		Shelby coal	544	— 75	469
S	NW SW SE	30-10-4	Mine		Shelby coal	513	— 73	440
S	SE NW SE	32-10-4	Outcrop		Shelby coal	557	— 78	479
S	SE SW SE	32-10-4	Outcrop		Shelby coal	556	— 78	478
S	NW NE NE	33-10-4	Mine		Shelby coal	533	— 75	458
S	SW SE NW	33-10-4	Paul Doran — Yakey-Gallagher 1	586	U. Bogota bl. sh.	478	+ 3	481
S	SW SW SE	22-10-5	John Powell — Rincker 1	636	U. Bogota coal	418	+ 10	428
S	C N½ N½	27-10-5	J. A. Aylward et al — Wabash R.R. 1	638	LaSalle ls.	353	+ 85	438
S	NW NE NW	34-10-5	A. M. Hughes et al — Fluga 1	645	LaSalle ls.	330	+ 90	420
S	SE SE NE	11-10-6	Outcrop		Shelby coal	605	— 20	585
S	NE NE SW	11-10-6	Mine		Shelby coal	610	— 20	590
S	NE NE NW	12-10-6	Outcrop		Shelby coal	610	— 20	590
S	SE SW NE	12-10-6	Outcrop		Shelby coal	620	— 20	600
S	SW SW SE	13-10-6	Coal Test		Shelby coal	625	— 20	605
S	SW corner	13-10-6	Outcrop		U. Bogota bl. sh.	614	+ 2	616
S	SE NE SE	14-10-6	Outcrop		Shelby coal	615	— 20	595
S	S½ SE SE	14-10-6	Outcrop		U. Bogota bl sh.	602	+ 2	604
S	SW corner	14-10-6	Outcrop		Shelby coal	626	— 20	606
S	NW SW SW	15-10-6	Outcrop		U. Bogota platy. ls.	615	+ 7	622
S	NE NW	18-10-6	Max Pray et al — Russell Estate 1	625	LaSalle ls.	419	+100	519
S	NW SW NW	20-10-6	Gulf Oil Co. — Best 1	626	LaSalle ls.	Est. 426	+110	536
S	W ¼ SW NE	22-10-6	Outcrop		U. Bogota bl. sh.	599	+ 2	601
S	SW SE NW	22-10-6	Outcrop		U. Bogota bl. sh.	605	+ 2	607
S	SW SW NW	24-10-6	Outcrop		Shelby coal	611	— 20	591
S	NW SW NW	26-10-6	Gulf Oil Co. — C. A. Best 1	626	LaSalle ls	Est. 426	+135	561
S	NW NW NE	12-11-2	Outcrop		Omega ls.	612	—123	489
S	SW SE SE	12-11-2	Outcrop		Omega ls.	618	—123	495
S	SE NE NE	13-11-2	Outcrop		Omega ls.	625	—123	502
S	NW NW NW	17-11-2	Swords & McDugal — B. Darst 1	682	LaSalle ls.	472	+ 78	550
S	NE NE NW	25-11-2	O. C. Borah — Patten 1	633	LaSalle ls.	433	+ 90	523

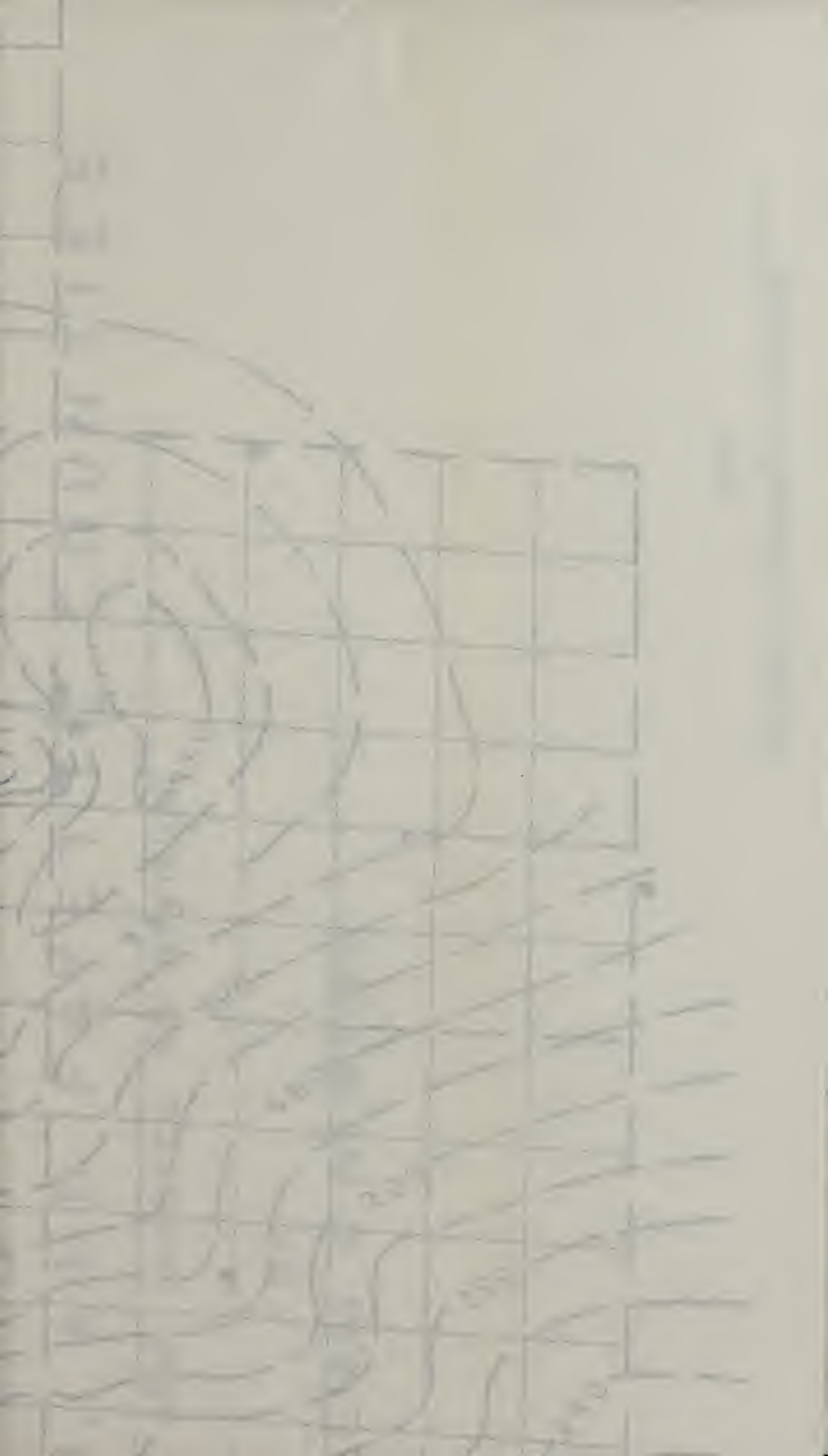
[a] F—Fayette; E—Effingham; S—Shelby.

[b] Abbreviations: bl., black; FW., fresh water; ls., limestone; sh., shale; ss., sandstone; U., upper.

Co.[a]	Location ¼ sec. T.N.—R.E.		Company, farm, well No.; outcrop, or mine	Ground elev. of well	Horizon[b]	Elev. of Horizon	Interval to Key Bed	Elev. of Key Bed
S	SW NE NE	30-11-2	Outcrop		Shelby coal	628	— 38	590
S	W ¼ NW NW	31-11-2	Outcrop		Newton Fw. ls.	632	— 33	599
S	SW SW SE	32-11-2	Seaboard Oil Co & P. N. Wiggin, Jr. — Pauline Miller 1	649	LaSalle ls.	454	+ 95	549
S	SE corner	4-11-3	Clint. Milan et al — Kull 1	616	U. Bogota ls	473		473
S	SW NE SE	5-11-3	Outcrop		Shelby coal	553	— 55	498
S	SE SW SW	6-11-3	Outcrop		Shelby coal	565	— 55	510
S	SW SE SE	8-11-3	Outcrop		Shelby coal	557	— 59	498
S	E ½ NW NW	9-11-3	Mine		Shelby coal	543	— 59	484
S	NW SE SE	13-11-3	Mine		Shelby coal	546	— 60	486
S	SE NE NW	14-11-3	Water well		Shelby coal	517	— 60	457
S	NE NE SW	17-11-3	Outcrop		Shelby coal	557	— 60	497
S	SW SW SW	18-11-3	Outcrop		Omega ls.	619	—125	494
S	SE SE SE	20-11-3	Outcrop		Shelby coal	541	— 62	479
S	SE SE NE	21-11-3	Mine		Shelby coal	586	— 62	524
S	NE NE SE	21-11-3	Outcrop		Shelby coal	573	— 62	511
S	NW NW SE	21-11-3	Outcrop		Shelby coal	564	— 62	502
S	NW NW SW	21-11-3	Outcrop		Shelby coal	554	— 62	492
S	SW NW	21-11-3	Outcrop		Shelby coal	561	— 62	499
S	NE NE SE	23-11-3	Mine		Shelby coal	550	— 62	488
S	W ¼ NW NW	26-11-3	Outcrop		Shelby coal	557	— 64	493
S	NE SE NE	28-11-3	Mine		Shelby coal	537	— 63	474
S	NE NW NE	30-11-3	Outcrop		Omega ls.	604	—125	479
S	NW NE NW	30-11-3	Outcrop		Omega ls.	607	—125	482
S	SE SE SW	30-11-3	Outcrop		Omega ls.	596	—125	471
S	SW SE SE	34-11-3	Mine		Shelby coal	521	— 63	458
S	SE NW SE	35-11-3	Outcrop		Shelby coal	541	— 65	476
S	SW SW SW	4-11-4	Mine		Shelby coal	511	— 50	461
S	NE SE SE	5-11-4	Mine		Shelby coal	508	— 60	448
S	SE SE SW	8-11-4	Dr. W. J. Eddy — ? 1	560	LaSalle ls.	380	+ 70	450
S	NW NE SW	8-11-4	Mine		Shelby coal	523	— 60	463
S	NE NE NE	9-11-4	Coal test		Shelby coal	496	— 60	436
S	NW NE NE	19-11-4	Outcrop		Shelby coal	536	— 60	476
S	SE NE SE	19-11-4	Outcrop		Shelby coal	541	— 62	479
S	NW NW SE	20-11-4	Mine		Shelby coal	536	— 63	473
S	SE SW SE	31-11-4	Outcrop		Omega ls.	559	— 30	529
S	SW SW SW	7-11-5	Water well		Shelby coal	490	— 40	450
S	SW NW SE	8-12-2	W. S. Tatum — Harper 1	639	LaSalle ls.	541	+ 65	606
S	SE SW SW	20-12-2	Independent Prod. & Ref. — Hackenburg 1	668	LaSalle ls.	559	+ 70	629

S	NW SE SE	25-12-2	Mine		Shelby coal	567	— 46	521
S	SW NW SE	25-12-2	Outcrop		Shelby coal	585	— 46	539
S	NW SE SW	25-12-2	Mine		Shelby coal	580	— 46	534
S	NW NE NE	34-12-2	Outcrop		Shelby coal	607	— 45	562
S	NE NW SE	35-12-2	Outcrop		Newton underclay	605	— 46	559
S	SW SE SE	6-12-3	Zephyr Drlg. Co. — Holmes 1	644	U. Bogota bl. sh.	549	+ 3	552
S	NE NE NW	27-12-3	Prod. Oil & Devel. Co. — Boys Estate 1	643	LaSalle ls.	398	+ 83	481
S	SE NE NE	17-12-4	Kingwood Oil Co. — Staley 1	680	U. Bogota bl. sh.	445	+ 3	448
S	E ½ SE SE	24-12-4	Outcrop		Omega ls.	575	—130	445
S	SW NE SE	33-12-4	Mine		Shelby coal	479	— 53	426
S	N ½ SE SW	33-12-4	Outcrop		U. Newton ls.	565	—116	449
S	SE SW SW	34-12-4	Prunty Prod. Co. — Hickey 1	655	U. Bogota ls.	426		426
S	SW SE NE	12-13-2	Illican Oil Corp. — Carr 1	717	LaSalle ls.	499	+ 60	559
S	SW SE	32-13-4	Dr. W. J. Eddy — E. Braden 2	670	LaSalle ls.	395	+ 78	473

a F—Fayette; E—Effingham; S—Shelby.
b Abbreviations: bl., black; FW., fresh water; ls., limestone; sh., shale; ss., sandstone; U., upper.



STATE OF ILLINOIS
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M. M. LEIGHTON, *CHIEF*
URBANA

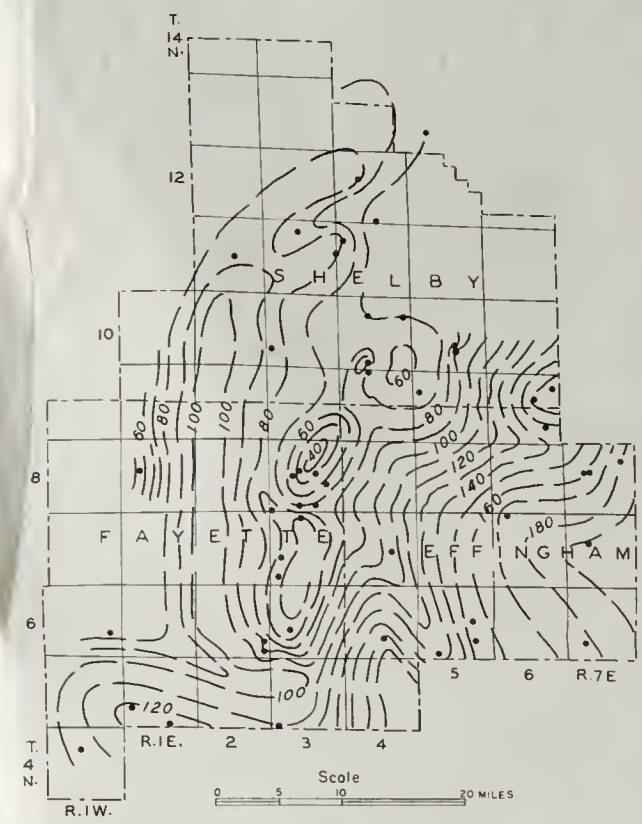
SURFACE STRUCTURE MAP
OF
SHELBY, EFFINGHAM, AND FAYETTE COUNTIES

PRELIMINARY MAP SUBJECT TO REVISION

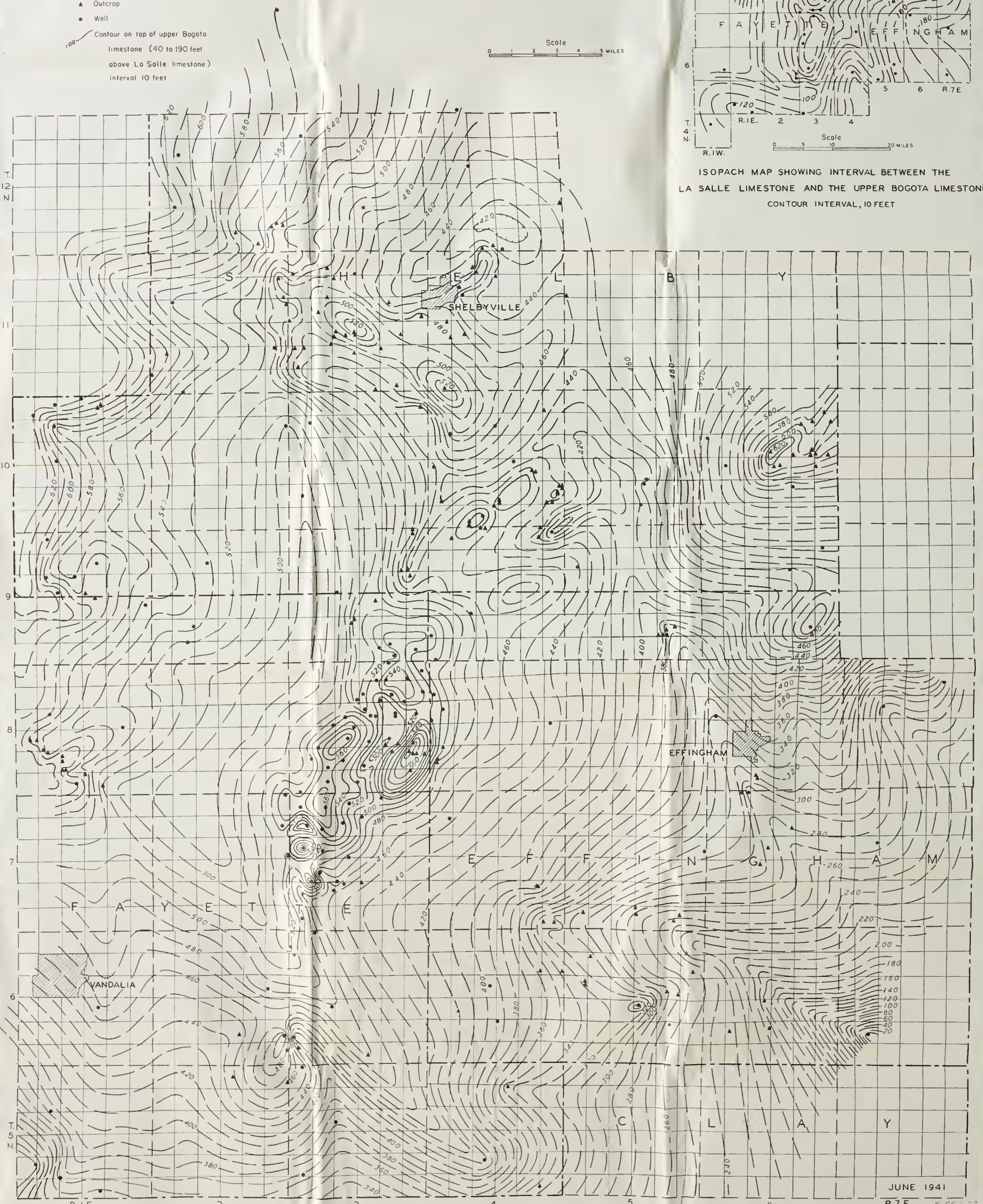
BY
WILLIAM A. NEWTON

LEGEND
- ▲ Outcrop
- • Well
- 100 — Contour on top of upper Bogoto limestone (40 to 190 feet above La Salle limestone) interval 10 feet

Scale
0 1 2 3 4 5 MILES



ISOPACH MAP SHOWING INTERVAL BETWEEN THE LA SALLE LIMESTONE AND THE UPPER BOGOTA LIMESTONE
CONTOUR INTERVAL, 10 FEET



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